



Atty. Dkt. No. 035642-0104

**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant: Verena GRIMM et al.  
Title: Method For Detecting Microbial Antibiotic Resistance  
Appl. No.: 10/673,038  
Filing Date: 09/29/2003  
Examiner: Steven Pohnert  
Art Unit: 1634  
Confirmation Number: 8031

**RESPONSE TO RESTRICTION REQUIREMENT**

Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Sir:

This communication is responsive to the Office Action mailed in the above-captioned case on May 4, 2006.

Applicants believe no additional payment is required for filing this response. If this is incorrect, however, the Commissioner is authorized to make appropriate charges or credits to Deposit Account No. 19-0741 to provide exact payment.

**Restriction Requirement**

Applicants hereby elect, with traverse, the claims of Group I, claims 1-13, for prosecution in the instant application. Applicants elect *Enterobacteriaceae* for claim 5. Regarding the combination of triplets for claim 9, applicants identify the probe set for the polymorphism at position 37 in the TEM amino acid sequence, *i.e.* CAG, AAG, GAG and TAG. *See, e.g.* Table 1 and Example 1.

Applicants devised a new way to determine the presence or absence of a micro-organism harboring a beta-lactamase exhibiting resistance to particular beta-lactam antibiotics. To this end, the micro-array put to use in the present method contains on predetermined locations thereon a plurality of sets of nucleotide sequences of the general formula R1-(X)-R2. Thus, contrary to the examiner's assertion, the sequences are structurally related. A set of nucleotide sequence contains three main components, R1, X and R2. R1 and R2 are nucleotide sequences having a length of from about 3 to about 25 nucleotides and are derived from a particular sequence of interest of a beta-lactamase gene of a micro-organism. These sequences R1 and R2 are separated by a triplet in the original beta lactamase gene, which is designated with "X". In order to screen for variations at a specific location (i.e. "X") the triplet is varied and may cover all 64 permutations for the amino acids. However, for practical purposes the variation of "X" is selected to account for a potential change in an amino acid in the gene sequence. For example, in case the original triplet was GCT, encoding the amino acid alanine, the triplets GCC, GCG and GCA may in principle be disregarded, since such mutations would not result in a change of the primary structure of the resulting polypeptide, which eventually will account for the development of a resistance towards a particular drug. Accordingly, a set of nucleotides covers a specific position of interest in the beta-lactamase gene.

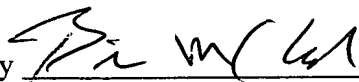
Applicants, therefore, respectfully request that the restriction requirement be withdrawn. In any event, applicants specifically reserve the right to file divisional applications covering the subject matter of the non-elected claims.

Receipt of the initial Office Action on the merits is awaited.

Respectfully submitted,

Date June 5, 2006

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By 

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